Topic	Question Date	Question Answered	Question	Answer	Status
Ch 2	7-12-07	7-13-07	Tri-W: Are the leachfields around town proposed in the Tri-W project fully designed?	In-town leachfields, other than Broderson, have been screened out due to their limited mitigation of seawater intrusion.	
Ch 2	7-12-07	7-13-07	Sprayfields: Is tertiary treatment required for sprayfields? Will it be chlorinated?	No and no.	
Ch 2	7-12-07	7-13-07	Sprayfields: What measures have been taken to prevent surface runoff from the sprayfields? Bad impacts if the soil from sprayfields flow into bay.	The system would require a detailed operations plan, and the site would also need to have overflow capacity in the event of a system failure.	
Ch 2	7-12-07	7-13-07	Urban in-lieu: Is tertiary treatment really required for urban in-lieu? In the report, Table 2.3 defines it as shallow wells.	Yes.	
Ch 2	7-12-07	7-13-07	Salt loading: Is there any municipalities banning the use of water softeners to lower the salt loading?	Yes, water softeners are a common problem for municipalities with Total Dissolved Solids effluent limits.	
Ch 2	7-12-07	7-13-07	Clarification: The community needs to understand the difference between facultative ponds and constructed wetlands.		Comment
Ch 2	7-19-07		Table A.2: Would it be possible to get more detail? It is difficult to tell what energy costs are associated with which components in the report. Also, for level 2a and 2b they are using Broderson to the same level but the energy numbers are	The first two lines for each level are for energy and labor for spray field operation. There are some typographical and calculation errors in Table A2 that will be corrected for the final report, including energy costs for level 2a and 2b.	

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			different. If this is not a mistake, please explain why those numbers would be different.		
Ch 2	7-19-07		Table A.2: Is the assumption for Broderson that the water is being pumped from the cemetery? How many lift stations would be needed? What kind of energy are we talking about here?	The energy costs in Table A2 assume pumping from a treatment plant east of town, near the cemetery. There would be a single pumping facility at the treatment plant.	
Ch 2	7-19-07		Table 2.7 under 3b it shows 'Shift in Production' at 400 ac-ft. Table 7.3 shows 'Shift in Production' at 540 Ac-ft. Regardless, what mitigation factor do we apply to those shift in production numbers to get SWI ac ft? (I'm guessing that's unknown depending on what kind of shift to what other wells?)	There are some typographical and calculation errors that will be corrected for the final report, including shift in production for level 2b. However, the actual amount of production shift needed will vary, depending on the alternative source that the water purveyors identify. Shifting to the upper aquifer or east side of town would not have as much benefit to the basin as replacing groundwater pumping with imported water.	
Ch 2	7-19-07		Broderson: Is it true there may be more future regulations regarding the use of Broderson than there would be for Ag reuse/exchange? Doesn't it make more sense to encourage people to be replenishing the aquifer than sending the water out of town?	It is unknown which disposal/reuse option, between leachfields at Broderson or agriculture reuse, may have more restrictive discharge regulations in the future.	
Ch 2	7-19-07		Why have Purveyor production shifts part of the 3b option and not the rest.	Level 3b recognizes that there is a certain amount of opposition in the community to leachfields at Broderson. Both Level 3a	

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			Why exclude Broderson from 3b. Add Broderson at half capacity (initially) to 3b, you reduce spray fields and storage dramatically, and get more recharge than 3a. (depending on mitigation factor for production shifts)	and 3b achieve similar results, but one does not utilize Broderson. Combining Broderson with other significant water purveyor participation would reach a higher level of mitigation. These options largely depend on the water purveyors and could be implemented to meet water demand at build-out (Level 4). The costs of going from Level 3 to Level 4 are not estimated because they are entirely dependent on the water purveyors.	
Ch 2	7-19-07		Table 7.5 introduces different numbers for level 3 Sea Water Intrusion mitigation than are presented in Chapter 2 and Table 7.4. Table 7.5 shows 590 AFY and 620 AFY. Elsewhere it is 550 and 590.	This looks like a typo. For consistency in the report, the estimates for Level 3 should likely be 550 AFY to 600 AFY. However, a Level 3a range of 590 AFY to 620 AFY is within the accuracy of this conceptual level report.	
Ch 3	6-19-07	6-22-07	De-coupling components: What is the best way to go about de-coupling the different components?	The Project Team has separated the project into 5 specific components (collection, treatment, bio-solids handling, plant siting, and effluent reuse/disposal) for their technical evaluation, while recognizing the interdependency of these items. The TAC has the option to consider the components individually or as a whole for the pro/con analysis.	
Ch 3	6-19-07	6-22-07	STEP tank excavation: How big is the excavation hole needed for a new STEP tank?	The 1500 gallon STEP tanks are 5 ft diameter by 10 ft long. The temporary excavations should be able to have vertical walls with 1 ft to 2 ft of clearance around	

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				the tanks (say 18 inches). The tanks would be buried from about 2 ft to 5 ft deep. So the length, width, and depth would be around 13 ft x 8 ft x 8 ft.	
Ch 3	6-19-07	6-22-07	Dewatering for STEP: What kind of dewatering will be required for the installation of the STEP tanks?	Groundwater in the excavations would have to be pumped out so the tank can be placed on solid ground. Tanks in areas with high groundwater would need straps and anchors to keep them from floating out of the ground.	
Ch 3	6-19-07	6-22-07	Dewatering for gravity: What kind of permits will be required for dewatering the gravity system? Must make sure the water does not go into the bay.	An NPDES permit would be required for dewatering. Permit conditions would identify restrictions on disposal of dewatering water.	
Ch 3	6-19-07	6-22-07	Construction: What is the estimated timeline of construction of both the gravity and STEP collection systems?	Construction is estimated to take approximately 3 years.	
Ch 3	6-19-07	6-22-07	Request: Is it possible to get an illustration of gravity and STEP on top of each other? Color coded so we can clearly see the difference and also showing the disturbance area? This would be a good prop for the next TAC meeting.	It is probably not possible to have an illustration by Tuesday's meeting on collection systems. The area of disturbance would vary greatly, depending on the conditions of individual properties.	
Ch 3	6-19-07	6-22-07	STEP tank retrofit: Is it possible to use a bladder to line the inside of the current septic tank to make it compatible for a STEP system? If not we need to make it clear to the	The Project Team is not aware of this type of product on the market.	

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			public this is not an option.		
Ch 3	6-19-07	6-22-07	Odor control: for STEP, how does it work? What kind of control measures will be put in place?	STEP tanks would be vented to roof level, similar to existing septic tanks. Air release valves on the pressurized main lines would be inside of an enclosure similar to a water distribution system, but with a carbon or other type of filter.	
Ch 3	6-19-07	6-22-07	Odor control: Will there be venting of the STEP tanks? It was not mentioned in the report.	See above.	
Ch 3	6-19-07	6-22-07	Control box: Where is the control box for the STEP tank located? How big is it and will it get in the way of anything else in the yard?	Orenco's website shows a small control box that looks similar to a controller for a lawn sprinkler system. It could probably be located on a wall of the house.	
Ch 3	6-19-07	6-22-07	STEP tank location: Is it possible to place the STEP tank in the Right-of-Way? What kind of permits would be needed for that to happen? What kind of construction specifications would be needed for this to happen? Would this require a road certified tank? What is the additional cost of that?	The option for placing tanks in the right-of-way is being explored.	
Ch 3	6-19-07	6-22-07	Back up power: What type of generators are needed for the STEP tanks? Would every property be required to have one? Would this be a homeowner cost or project cost? There is some discussion on page 3-6 of report for back up power for buildings but not really the homes.	STEP tanks have sufficient storage for most power outages, less than a few days. It is not anticipated that any agency would require individual generators for each home. It is typical for lift stations that serve neighborhoods to have back-up power.	

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Ch 3	6-19-07	6-22-07	Alarm system: What kind of system will be in place? Will this be an alarm that goes only to the home or will there be a more central alarm?	STEP systems can be outfitted with a warning light or alarm at the house, with the homeowner responsible to call for service. Or, a telemetry system can be installed to notify a central service center. The Draft Fine Screening Report assumes remote telemetry to a central maintenance operator.	
Ch 3	6-29-07	7-2-07	On-lot costs: The yard restoration costs sound way too low. We could not restore our yard with either collection system option for that little amount.		Comment
Ch 3	6-29-07	7-2-07	Green houses gases: The STEP system releases methane at the tank and air release valves in system, would there still be enough methane for cogeneration at the end?	Cogeneration would be possible. However, it is generally not cost effective for small plants. In addition, the solids treatment process would need to employ anaerobic digestion for methane generation and capture. This process has high capital and operating costs which contributes to the high entry costs for cogeneration.	
Ch 3	6-29-07	7-2-07	Cypress Trees: How much excavation would be needed for the STEP system? Would all the trees be lost? There are some in the Right of Way and some in the front yards. (between 4th and elementary school, Santa Ysabel and Romona)	Trenching for a STEP system would likely be able to avoid major impacts to large trees, directional drilling would have even less of an impact. In many locations, the placement of the collection lines can be adjusted to avoid trees and other features.	
Ch 3	6-29-07	7-2-07	STEP tank replacement: What is the life span of the STEP tanks? How often would they need to be	STEP tanks should last a long time, similar to the plastic pipes. Routine maintenance and occasional replacements should be	

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			replaced? –if ever? Is this cost accounted for in the cost estimates?	within the O&M estimates.	
Ch 3	7-12-07	7-13-07	STEP systems: Is there any example of STEP being used in a community that is similar in population density to Los Osos? All of the case studies seem to have larger lot sizes that are farther apart. Is this technology even feasible in Los Osos?	There are some examples of STEP systems with similar parameters as Los Osos. A STEP system, as presented in the Fine Screening Report, would be feasible in Los Osos.	
Ch 4	6-14-07	7-2-07	Full cost of treatment: the energy information in chapter 4 needs to link to the solids treatment cost information to show the "full cost" of treatment, that is, if one treatment system has lower energy costs but leads to more costly solids treatment, then its not really a lower energy cost system. On the other hand, if there are no appreciable differences, or there are logical groups, then those should be shown.		Comment
Ch 4	6-14-07	7-2-07	Request: Information should be added to each table in chapter 4 showing how MBR technology compares, so a fair comparison to Tri-w can be made.		Comment
Ch 5	6-29-07	7-2-07	Facultative ponds: Are the CO2 emissions higher with ponds? This relates to the carbon foot print.	While ponds require less energy input than the other options, they release methane, which is a more powerful greenhouse gas than carbon dioxide. A full carbon footprint	

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				analysis may be done in the future to assess the relative impacts of the treatment options.	
Ch 5	6-29-07	7-2-07	Facultative ponds: If we were to use STEP and ponds, where would the septage pumped from the STEP tank go?	The septage would go to the plant for treatment. The solids would end up in the ponds. We did not calculate sludge volume for ponds, since the amount can be variable and is only removed as necessary (~20 years).	
Ch 5	6-29-07	7-2-07	Facultative ponds: What happens to the septage in the ponds once it is dredged? Does this need to be treated before going anywhere?	The pond sludge would be treated with mobile, temporary equipment such as centrifuges to increase the solids percentage prior to hauling to a regional solids facility similar to the other options.	
Ch 5	6-29-07	7-2-07	Sludge handling with respect to STEP: Can a truck meant for pumping septic tanks pump a STEP tank?	Yes.	
Ch 5	6-29-07	7-2-07	Sludge handling with respect to STEP: How many tanks worth can one truck handle?	The small trucks can handle one or two septic tank pump-outs.	
Ch 5	6-29-07	7-2-07	Digesters: What is the advantage to using a digester? What is the difference in the end product with or without composting? There is not a clear advantage in the report.	Digesters reduce volume by removing volatile solids, and they remove pathogens. The end product of composting is similar with and without digestion. Digesters stabilize the sludge and reduce the volume in a very efficient (small) footprint. For certain facilities, available land for composting is limited, making volume reduction prior to composting critical.	
Ch 5	6-29-07	7-2-07	Digesters: Can you only do methane	Digesters are where most of the methane is	

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			recovery with digesters?	produced.	
Ch 5	6-29-07	7-2-07	Energy: What is the cost estimates for energy for each of the alternatives? Are these included in the O&M costs?	The power costs are included in Tables 4.13 and 4.14.	
Ch 5	6-29-07	7-2-07	Energy: Can you list ability for cogeneration for each alternative in Tbl. 5-17?	Cogeneration may not be feasible, due to the small size of the treatment plant.	
Ch 5	6-29-07	7-2-07	Aquifer: What are the boundaries of the aquifer?	See Figure 1 of the Sea Water Intrusion Report by Cleath and Assoc. http://www.losososcsd.org/pdf/SWIntrusionFinalGrant.pdf	
Ch 5	7-9-07	7-13-07	Green waste: How much green waste is currently being hauled out of Los Osos annually? Would it be possible to use it for composting of bio-solids? How much green waste would the composting process require?	Approximately 5,200 tons per year of green waste is hauled from Los Osos. This value is fairly constant over the years. It is likely that this amount could be available for composting in Los Osos. Based on a 5:1 blend, this could be mixed with approx. 1,000 tons/year of biosolids.	
Ch 6	8-Jun-07	7-2-07	Site ranking: There is no obvious reasoning behind high priority sites being considered higher than the medium or low priority sites? Why are they not considered equal?	It is important to note that all the sites were considered viable for a treatment plant. In ranking them, the Project Team identified many factors. Slope, soils, geology, visibility, size and configuration were all factors included in the analysis. There are clear differences amongst the sites. Refer to tables for full explanation. (See especially Table 5.1 in the Rough Screening Analysis.)	
Ch 6	6-8-07	7-2-07	Site ranking: Why is the Morrison site specifically not considered a	Morrison is recognized as a potentially viable site. However, the useable land is	

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			higher priority site?	sloped, which would impact construction costs. The site is also more visible from LOVR and very close to a church. The configuration of the site is more difficult because of the wetlands/willows as well as the PG&E transmission easement. However, this site could be workable in the absence of the higher tier.	
Ch 6	6-14-07	7-2-07	Suggestion: The environmental ad-hoc group is concerned that chapter 6 of the fine screening report focused primarily on the high-priority sites without much discussion of the other sites that passed rough screening. The reasoning is partly that Morrison, especially, being located farther from sensitive resource areas (Warden Lake wetlands) is worth more discussion. However, the group still believes that the high-priority ranking described in the fine screening is correct; their concern is more focused on better documentation of how the others were screened out. An overriding concern is the limited discussion about the non-high priority sites. They suggest that, from an environmental perspective, it might read better if the sites were grouped as: a. Cemetery area (Cemetery,	Comment noted. More information was presented on these sites in the Rough Screening Report, much of which was not carried forward to the Fine Screening. Please refer to the earlier report. Please note that the other sites were *not* screened out, simply ranked according to a mix of factors.	Comment

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			Giacomazzi, Branin) b. Andre II / Robbins c. Morrison d. Gorby e. Tri-W		
Ch 6	6-14-07	7-2-07	Suggestion: The group suggests that the project team review the EPA 2006 Emerging Technologies for Biosolids Management Report: http://www.google.com/search?hl=en&q=biosolids+management+emerging+technologies&btnG=Google+Search The group's thinking is that the community will point to this report as evidence that the project team is not using the best approach to managing biosolids, ignoring the detail in the report that many of the new technologies discussed have no cost information and are unproven in the real world. (A copy of this report is on the W drive at: W/Research Documents/Document Library/EPA 2006 Biosolids Emerging Technology Report.		Comment
Ch 7	7-19-07		Table 7.5: In the row for disposal and reuse and the column of SWI Mitigation level three (590 AFY) why is the spread so large? It is a whole order of magnitude while the others are much closer together.	The cost varies depending on whether upper aquifer is used or if water must be imported. See Table 2.7.	
Ch 7	7-19-07		Section 7.3.3: "The Broderson parcel is assumed to suffice as biological	It is assumed that out of town sites have only minor biological impacts that may	

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			mitigation for any alternative." Is this statement true? We believe the mitigation was used up already with the beginning construction of the Tri-W project. Is there still enough mitigation left to still use this site for all the other project alternatives?	require mitigation.	
Ch 7	7-19-07		Tri-W project: How flexible is the Tri-W project? Is it possible to create a project option that used the Tri-W site with say, a STEP collection and no MBR? Are we really only considering Tri-W project exactly how it is as the only in town option?	Based on previous and current evaluations, MBR is the most appropriate treatment technology for an in-town location. It would technically feasible to combine STEP collection with MBR treatment. Additional disposal capacity does need to be considered for the previously designed Tri-W project.	
Ch 7	7-19-07		Blending aquifer water: Is it possible/ permitable to pump upper aquifer water and blend with the lower aquifer water to a point where the nitrate levels are safe enough to drink? Would this be another option for helping with the SWI mitigation?	Yes, the water purveyors may already be doing this where it is possible to find the correct ratio.	
Ch 7	7-19-07		Storage: Is it possible to use a constructed wetland as storage? Would this possibly create a whole bunch of regulatory issues that will make it difficult to maintain?	Yes, a storage pond could be designed as a constructed wetland. There would likely be additional operational and regulatory constraints.	
Gen	6-14-07	7-2-07	Suggestion: The group suggests the team review the City of Filmore's April 2007 report discussing why that City is using MBR technology,		Comment

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			including the information on energy use that Gordon has identified.		
Gen	6-19-07	7-2-07	Request: Tri-W must be in the next version of the Fine Screening Report.		Comment